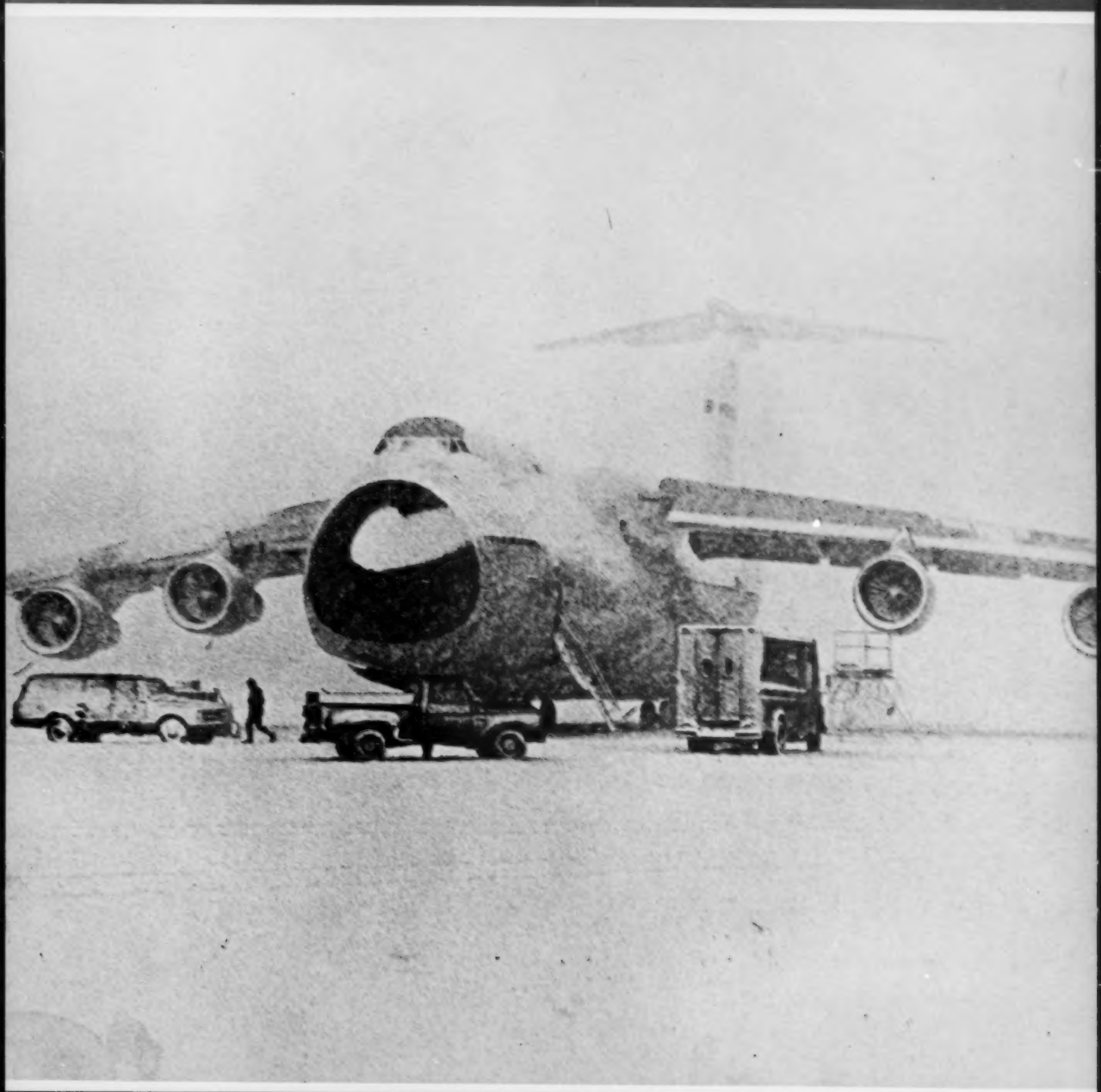
The MAC Flyer

NOVEMBER 1977



Cold Weather Quiz . . . page 8

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For Greater Efficiency
in MAC Air Operations

The MAC Flyer

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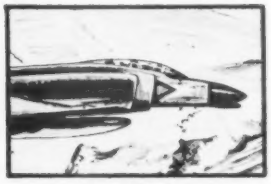

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Cover photo by Sgt Kent R. Draper

Everybody Can Be a Winner

Be the first in your outfit to be in this outfit.

Wherever discriminating people congregate a likeness of the World's Greatest Aviator is bound to be found.

We gave away 45 C.R. Terror T-shirts last June! Free! The recipients of this coveted garment earned the Rotund One's countenance by entering our 1977 flying safety writing contest. As you know, that contest ended 31 March 1977. Since that time, the *TMF* staff has received numerous phone calls, letters, and cablegrams requesting information as to how one might *purchase* a likeness of the Lothario of Airlift. Alas, we had to advise our friends that such a transaction was virtually impossible (unless they had *lots* of money) and that they must "wait'll next year." We then received obscene phone calls and letter-bombs, and some shady-looking characters began to follow us.

With this issue we breathe a sigh of relief . . . the 1978 MAC Flying Safety Writing Contest is officially open! Now everyone can get a C.R. Terror T-shirt!

Just follow these simple rules: Tell us your fly-safe story (truth or fiction) in typewritten, double-spaced manuscript form (send us two copies on 8 by 10 1/2 inch paper). It should be between 1,000 and 3,000 words (that's six to 14 pages). It can be in almost any form or style—poetry, prose, philosophy, etc. Identify your story by title only and attach a cover sheet telling us about yourself.

Send your completed, prize-winning essay to:

The MAC Flying Safety Writing Contest
HQ MAC/IGFE
Scott AFB, IL 62225

Everyone can qualify for the fantastic face of the Field-Grade Fumbler. Top finishers will get engraved plaques or desk sets. Start now—the contest ends 31 March 1978.

He Fell Out! He's Going to Die!

A chain of seemingly minor deviations leads to tragedy.

Some months ago, a loadmaster, trying to retrieve static lines after a personnel airdrop, fell from the aircraft to his death. The emotionless accident report leaves out words like tragic, senseless, traumatic . . . and sorting through the details one is tempted to find out who did what and why, but we'll leave that to those who have that regrettable duty.

"He fell out! He's going to die!" was more or less what the young witness said. Stark—yet seemingly simple. But as with many tragedies, the scenes leading up to the final act and curtain are multifarious with no apparent connection until finally, in the last gasp, the last uttered line, the plot becomes crystal clear. The audience stares in disbelief: "If only he had . . . If only they hadn't . . . . "

The troops had been briefed to "tailgate". . . .

The events leading up to the end were not that uncommon. First, there was a change in aircraft due to a mission problem. The original bird scheduled to make the personnel airdrop was equipped with dual rails; rather than take them up, the crew briefed the troopers to "tailgate." And though the second aircraft would have had no problems jumping troops from the paratroop doors, the troopers had previously planned and already briefed the ramp jump. It *seemed* like the thing to do.

And on the ground, the loadmasters rerigged the bird for the ramp jump. The turnbuckle on the static line anchor cable was hard to turn so the primary loadmaster apparently dipped it in hydraulic fluid and tightened it up until there were no threads showing. The anchor cable was good and tight.

In the air, the crew made a dry run across the DZ, so the jumpmaster could "take a look at things." The next six passes over the DZ would be "wet"; six troopers, one at a time, would exit the aircraft via the ramp. This was a test drop and the troops were in a hurry, so the orbits would be very short—the static lines would not be retrieved until all the drops were completed.

As more and more static lines dangled behind the aircraft, the anchor cable began to vibrate and oscillate—so much so that the loadmaster had to steady the cable so that the jumpers could hook up. But finally, all of the jumps were completed and only the task of retrieving the static lines remained.

As the secondary loadmaster activated the static line retriever, the quick-disconnect caught in a support bracket and disconnected, disabling the static line retriever. Seeing the difficulty, he disconnected his restraining harness and reconnected to a tiedown ring on the ramp where he could get closer to the fouled static lines and retrieve them manually if necessary.

The loadmaster abruptly announced he was going off headset and proceeded to the ramp.

As the secondary loadmaster attempted to retrieve the lines through the open cargo door, the primary loadmaster, who was up front in the cargo compartment, announced he was going off

headset. Without waiting for approval, he disconnected his headset and proceeded to the ramp. While en route, he fastened his restraining harness safety line to the anchor cable from which the static lines were trailing. As he approached the end of the ramp, he tossed the slack in his safety line to the secondary loadmaster standing nearby.

The loadmaster momentarily looked away from the ramp and the door.

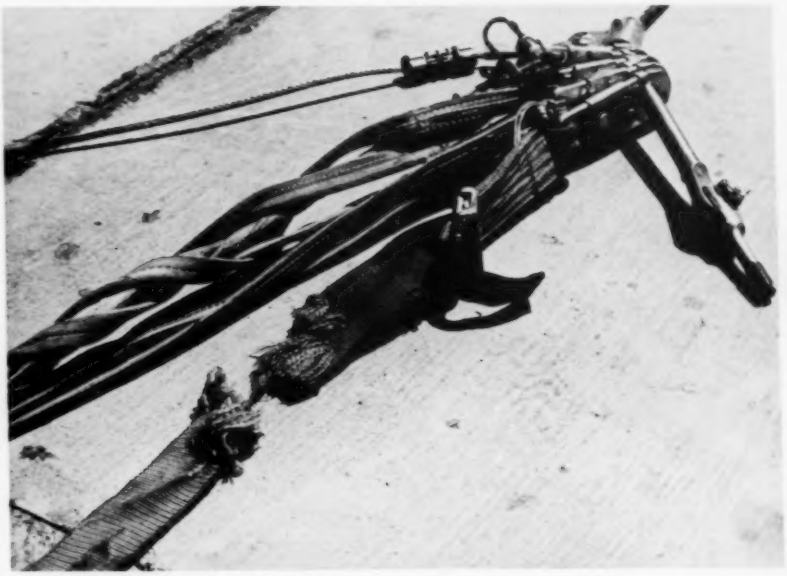
The secondary loadmaster's attention was momentarily diverted from the open cargo door area. Suddenly the safety line was jerked from his hand. Looking rearward, he was horrified to see his friend dangle for a second on his restraining harness behind the aircraft and then fall away to the ground 1,500 feet below.

The anchor cable that the primary loadmaster's safety line was attached to had, at that very moment, separated near the forward bulkhead. Apparently the lubricated turnbuckle, agitated by the constant pressure and vibration of the dangling static lines, had unwound. The added weight of the loadmaster falling into the slipstream was enough to complete the separation. The decelerative force of the loadmaster's weight, when it reached the end of the anchor cable, exceeded the design capacity of the safety harness line and it failed.

The aircraft recovered safely, dragging the anchor cable, static lines, retriever cable and a portion of the restraining harness behind.

As in so many accidents, a number of deviations from standard procedures occurred. Any one of these deviations taken alone probably would not have resulted in an accident. However, when combined, the seemingly unrelated errors resulted in disaster.

The center section of the right anchor line turnbuckle was never found.



The design limits of the restraining strap were exceeded.

The Tower of Babble

The problem of radio *non* communication is increasing. If you have any doubts, read on.

Gotham Center: Jack seven zero, descend to flight level two seven zero.
MAC 37870: Roger, departing flight level three one zero for two seven zero, MAC eight seven oh.
Center: Negative, MAC eight seven zero, that's for Jack seven zero. Jack seven zero, descend to flight level two seven zero. MAC eight seven zero, maintain flight level three one zero.
MAC 37870: Sorry 'bout that Center, eight seven oh is holding flight level three one zero.
Jack 70: Uh, Center, you want Jack seven zero to descend to flight level two seven zero?

This kind of dialogue is familiar to anyone who has flown in the IFR environment for awhile. It illustrates what is probably the weakest link in the air traffic control system: voice communication.

Recent disasters have resulted from noncommunication between flyers and controllers. MAC's world-wide operation makes this problem more acute for us. To address this problem, "Tower of Babble" will be a recurring feature. Your experiences, techniques, and philosophies will help make the feature a success, so send them to us. No formal presentation is needed; eligibility is based on legibility and anonymity is guaranteed.

Aircrewmen and controllers have enjoyed many technical advancements since the day of the Gooney Bird and radio range, but the requirement to speak plainly into the microphone hasn't changed. Almost the entire air traffic control system is based on the pilot's and controller's ability to talk to each other; when they can't, things can get very testy. As our examples will show, you must consider congested frequencies, aircrew and controller workloads, inattention, misinterpretation, and ignorance. Anytime a few of these factors combine in an operation an incident is likely.

Your Other Name

What to call each other over the radio is a sticky question. We can't use our names; there are too many of us, and it wouldn't sound "professional." So we have call signs, which themselves cause problems.

- The ground controller cleared the Starlifter (call sign Bam 29) to taxi back on runway 36, do a 180-degree turn, and hold for takeoff. While the left-seater was doing the driving, the copilot set tower frequency in the VHF and departure control in the UHF. With the big airlifter holding on runway 18, the tower cleared Navy Golf 080 for takeoff on runway 29 with this transmission on VHF and UHF: "Zero eight zero, change to departure . . . wind: two niner zero at one zero, cleared for takeoff."

About the time the Navy plane began rolling, the copilot of the 141 transmitted: "Bam

two niner, roger, cleared for takeoff."

The transport thundered down runway 18 and missed the smaller Navy flyer by about 2,000 feet, but only because the naval aviators had their craft airborne before the runway intersection.

The tower tried to call the Starlifter crew several times, but didn't get through because they were listening to departure control on UHF.

MAC Which?

A lack of "articulate" listening can lead to other problems as another MAC crew found out.

● The traffic load was light, just three airplanes. The air traffic controller was having no problem handling the departures and arrivals.

MAC 60360 was on departure and instructed to maintain runway heading, 180 degrees. Meanwhile MAC 38804 was being maneuvered for arrival on the same frequency. The controller instructed:

"MAC eight zero four, turn left heading three six zero, vector for spacing." MAC 804 dutifully acknowledged and complied.

About a minute later the controller asked MAC 60360 what his intentions were. "Following vector heading three six zero" was the reply.

Listening to the rapcon tapes shows that both MAC aircraft replied to the vectoring instruction, but the reply of MAC 60360 was blocked by the stronger transmitter of MAC 38804.

Foiling the System

Relying on controllers to correct a pilot's mistakes is obviously not an efficient way to operate. And sometimes both the controller and aircrew can work together to negate many of the safeguards built into the system, as you'll see in this scenario.

● The Boeing 727 was headed northwest toward Tinytown vortac at FL 310; a DC-9 was flying northeast to the same fix at FL 270. Both flights were in radio and radar contact with the controlling ARTCC, but not on the same frequency. The controller cleared the 727 to FL 280. The crew received the clearance but thought they were cleared to FL 230, and the copilot acknowledged. The Center controller heard only the 727's call sign and assumed the crew understood the clearance.

The DC-9 cruised toward its destination without any hint of trouble until the 727 appeared out of the murk. The DC-9 pilot took abrupt evasive action to avoid collision. The DC-9 pilot's quick reactions avoided tragedy, but two crewmembers were injured. After the near-miss the crew of the 727 and the air traffic controller discovered the error.

This encounter could have been prevented by proper radio terminology and techniques. The controller didn't get positive confirmation that the 727 crew had the correct altitude clearance. But he wasn't the only one at fault: the copilot started talking before he pressed his mike button, causing his first few words, "flight level two three zero," to be garbled; only the call sign came through clearly. The accepted, but nonstandard, practice of acknowledging clearances with call signs only caused the controller to believe that the 727 crew had it right. And since the controller didn't correct the aircrew . . .

Doing It Right

The payoff for effective voice communications is smooth traffic flow and accident prevention. Efficient listening can help the aircrew develop total situation awareness.

● In one such case, a Trident crew's awareness was heightened by having to avoid a jumbo jet at their altitude and on a converging heading. Ten minutes later, with this close call very fresh in the crew's minds, the controller cleared the Trident to descend to FL 180; the pilot questioned the clearance because he knew they had overtaken a 727 below them. The crews were listening on the same frequency, aware of each other's positions, and they took positive action to avoid disaster.

This incident had a happy ending because of the crews' good judgment; many more potential disasters have been averted primarily by luck. But we can't depend on luck to do our job for us. The small cross section of incidents presented in this article is only part of a frightening total. Sooner or later, unless we each deal with the problem, that potential disaster will become grim reality for a MAC crew somewhere.

It's worth remembering that communication isn't just the problem; it's also part of the solution. We're able to tell you about communication hazards only because somebody took the trouble to report them. If you have a close call of your own, by all means get mad, heave a sigh of relief, or whatever else seems appropriate—but for everybody's sake, *tell somebody about it.*

Are you ready? You'd better be—winter's just around the corner.

Cold Weather Quiz

When you stop to think about it, there are a lot of nice things about winter: engines put out more thrust, there are fewer thunderstorms around, you don't have to mow the lawn every time you come back from a trip, and it takes your flight suit longer to reach its full EPA-rated goat-power. But every silver lining has a cloud; the other side of winter's coin is a variety of nastiness such as icing, slick runways, low ceilings, and so on. And since these things require some preparation by those of us who aviate, *TMF* has provided the following quiz for anyone who wants to run his cold-weather I.Q. through a self-test cycle.

This short quiz isn't comprehensive, of course; but it should tell you if you're mentally ready to do battle with Ol' Man Winter. So grab a pencil and give it a try; answers are on page 31.

General

1. The most severe structural icing is likely to be encountered in:
   a. Thunderstorms and towering cumulus clouds.
   b. Stratus clouds near the freezing level.
   c. A carwash in Spearfish, South Dakota, in January.
   d. Freezing precipitation.

2. Icing in mountainous regions is:
   a. Most likely to occur on the leeward side of ridges.
   b. More probable and more severe than over lower terrain.
   c. Prohibited by MACR 55-1.
   d. Always associated with severe turbulence.

3. At a USAF base, the RCR might be reported as 23 (dry), 12 (wet), or 05 (icy). At an installation using the ICAO system for reporting braking action, the same conditions would probably be reported as braking actions of:
   a. Excellent, fair, poor.
   b. Normal, poor, nil.
   c. Good, medium, poor.
   d. Outstanding, so-so, rotten.

4. When flying into an area of much colder than standard temperature, you should expect your altimeter to indicate:
   a. Higher than actual altitude.
   b. Lower than actual altitude.
   c. The same as in standard temperature conditions.

5. Induction icing in a turbine engine is most likely at:

a. Low airspeed, high power setting.
b. High airspeed, low power setting.
c. Low airspeed, low power setting.
d. Night.

6. Taking off with ice or snow on the lifting surfaces is:

a. Okay if you're flying the heavies.
b. Okay if you add five percent to liftoff and climb speeds.
c. Okay if the command post says so.
d. Really dumb.

7. The symbol on a surface analysis chart means:

a. NCO club closed until further notice.
b. Moderate to heavy freezing rain.
c. This is a lousy place to land.
d. Both b and c.

Pretty easy, right? Now let's try a few for specific airplanes.

C-5

8. You're flying your Galaxy through icing conditions, avoiding prolonged operation at thrust settings below 60 percent N_1 rpm. You should also advance each engine individually to at least 90 percent N_1 rpm:

a. Every six minutes above 15,000 feet and every ten minutes below 15,000.
b. Every 15 minutes above 10,000 and every six minutes below 10,000.
c. Every ten minutes above 15,000 and every six minutes below 15,000.
d. Until the copilot asks you to stop because the yaw is making him airsick.

9. You're expecting light to moderate icing on descent. You should turn on the engine anti-ice:

a. 10,000 feet above the highest icing level.
b. When the icing light comes on.
c. Ten minutes before entering icing conditions.
d. If Major MacZaminer is in the jump seat.

C-7

10. Glide approaches are recommended in cold weather conditions so that normal engine temperatures can be maintained.

a. True.
b. False.
c. None of the above.

11. Even a 'Bou can be over-powered in colder than standard conditions. You should reduce maximum manifold pressure_____ in. Hg for each _____ degrees Centigrade below standard carburetor air temperature.

a. 1/2, 5.
b. 1, 10.
c. 1 1/2, 15.
d. a few, several.

C-9

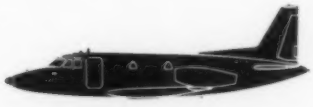
12. Before applying de-icing fluid to the Nightingale, it is necessary to:

a. Position a fire truck opposite the de-icing truck.
b. Shut down the APU.
c. Disconnect external power.
d. Sprinkle some salt on its tail.

13. If icing conditions exist, turn on engine anti-ice:

a. Immediately before engine start.
b. Immediately after engine start.
c. Instead of going back into crew rest.
d. Just before takeoff.

CT-39



14. When making an approach in icing conditions,

the pilot should check:

a. The stall speed at 45 degrees of bank.
b. For erroneous ILS indications.
c. The copilot's pucker factor.
d. For proper slat extension.

15. You're walking across the rutted snow of the ramp toward your trusty Sabreliner when you notice a transient maintenance guy applying hot air to the nosewheel. He's either crazy or:

a. He's trying to keep the nosewheel strut in the proper temperature range for operation on packed snow.

b. He knows that the tubeless nosewheel tires may go flat when taxiing at temperatures below minus 20 degrees Fahrenheit, unless they're preheated for 15 to 20 minutes.

c. He's trying to clear a repeat writeup on the pilot's footwarmer.

d. He's trying to thaw the copilot's hand, which froze to the nose gear steering cannon plug during walkaround.

C-123

16. You're about to spend more than four hours on the ground at Coldspot Air Patch, where the temperature is forecast to remain below 0 degrees Fahrenheit until the next 50 percent pay raise. Don't forget to:

a. Preheat the engines, even if oil dilution was performed before shutdown.

b. Find a warm place to wait and take the battery with you.

c. Both a and b.

d. Complain to the scheduler when you get back.

17. You're taxiing the Provider on a slippery ramp when classic skidding occurs. You can aid the aircraft's turning ability by careful use of:

a. Advanced skateboard techniques.
b. Differential braking.
c. Differential thrust.
d. Studded tires.

C-130

18. You're operating your Herky Bird on a snowy, slushy ramp. Which of the following statements is true?

a. Use of Nesa and pitot heat is not recommended prior to and during use of reverse power.

b. Braking is generally better on compacted snow than on loose snow.

c. At the start of taxiing, the wheels should be visually checked to ensure that they're rotating.

d. If your bird is ski-equipped, try to keep the weight on the downhill edges.

19. You've just taken off from a slushy runway. You should:

a. Leave the landing gear down until the slush has blown away.

b. Remove the landing gear inspection windows and turn the air conditioning to full hot to melt the slush.

c. Cycle the landing gear to reduce the possibility of its freezing in the "up" position.

d. Retract the gear immediately after liftoff to prevent further ice accumulation.

C-135/C-137

20. While taxiing the C-135 over snow and slush, which of the following operating procedures is recommended?

a. Maintain inboard engine thrust at idle.
b. Exercise the flight controls frequently.

c. Taxi with flaps up.
d. All of the above.

21. Which of the following has the most significant effect on takeoff ground run?
a. Ice.
b. Slush.
c. Powdery snow.
d. Wet paint.

C-141

22. You're making an approach when you notice that there's a buildup of ice on an outer wing section. Should you go ahead and land anyway?
a. Yes, if the accumulation is one-half inch or less.
b. No; anything more than one-quarter inch is too much.
c. It depends on whether we'll make Happy Hour.
d. Only if the ailerons still work.

23. The minimum power setting required for effective engine anti-ice is:
a. Idle.
b. Seventy-two percent N_1.
c. Seventy-one percent N_2.
d. In Section I of the Dash One.

H-1

24. Whenever possible, avoid landing on glare ice in order to reduce:
a. The possibility of whiteout.
b. Directional control problems at touchdown.
c. Bending loads on the cross tubes.
d. The copilot's blood pressure.

UH-1N

25. Intentional flight through known icing conditions is prohibited when OAT is colder than:
a. 32 degrees Fahrenheit.
b. Minus five degrees Centigrade.
c. Three degrees Centigrade above the dewpoint.
d. Minus five degrees Fahrenheit.

H-3

26. The greatest dangers caused by ice accumulation are:
a. Lowered rotor blade efficiency.
b. Loss of tail rotor effectiveness.
c. Loss of engine power.
d. a and c.
e. All of the above.

H-53

27. If uncomfortable vibrations are encountered due to assymetric ice shedding from the tail or main rotor blades, change:
a. Altitude.
b. Airspeed.
c. Rotor rpm.
d. Seats.

Well, folks, that's it. If you did really well, award yourself a vacation in Fairbanks—you can handle it. If not, you'd better plan on going to Hawaii instead. And by the way, give yourself a double bonus for each answer you looked up in the book—because getting in the books is the best way of all to get ready for winter.

The Last Medevac

by Capt Douglas J. Miller
71 ARRS
Elmendorf AFB, Alaska

An up-all-day and fly-all-night schedule leads an aircrew to stretch their endurance to chilling extremes.

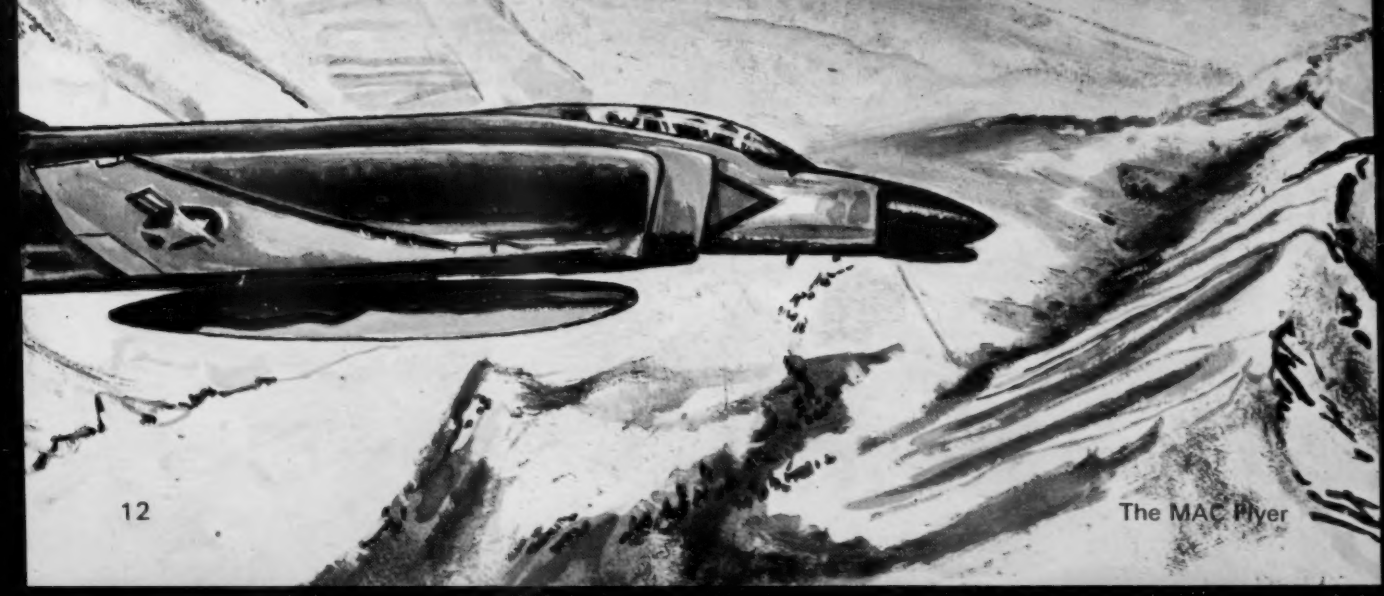
It was a crisp, chilly, fall morning. The sun was just rising over the Chugach Mountains as Capt Bill Steele gazed through his apartment window at the fresh snow which had fallen during the night. His first thought was of skiing, his favorite winter activity in Alaska.

Coming on alert at 1700 hours gives me about ten hours, he mentally calculated. I could make a dozen runs up at Arctic Valley or even a few at Alyeska. His anticipation was interrupted by the ringing telephone. It was Lieutenant Clark.

"Sorry to bother you on your day off, but there are some schedule changes which we need your help on—"

"Okay, okay, I'll be right over," Bill grumbled. As chief scheduler, Captain Steele was constantly performing "crisis mangement" to keep the flying schedule running smoothly. It ran against his grain to work during his crew rest; but the schedule was *his* responsibility, and he was determined to get the job done right.

A few miles away, Lt Fritz



Detrich was finishing breakfast, sending his wife off to work, and mentally planning his day.

"See ya tonight, honey!" Fritz called out as she left. "I'll be home about six—after the alert briefing." He had to decide whether to work on his SOS or study for the grad course he was taking downtown at the university. Neither were as appealing as the new fall of snow, so he donned his cross-country skis and took the dog for a run, resolving to study in the afternoon.

When alert time rolled around, all eight crewmembers arrived for their briefing. Captain Steele scanned the weather flimsy and announced to the crew that it looked like there would be more snow that night.

"Sergeant Freeman, how does the bird look?"

"Good shape, Cap'n."

As they broke up, Capt George Ferguson spoke to the copilot. "Fritz, could I ride in with you if we get scrambled tonight? I've worked on that damn truck of mine all day and I still can't get it to run right."

"Sure, George. Any time. Still having trouble with the timing, huh?"

Around 2300, Bill Steele was settling down for a long winter's nap when the bringer of bad news rang by his bed. Bill sighed and lifted the receiver.

". . . we've got an emergency medevac out of Fairbanks."

"Captain Steele, this is Major Jones at RCC. We've got an emergency medevac out of Fairbanks. The patient needs neurosurgery. You've got to take him to McChord."

The crew assembled at the Hercules and were joined by two flight nurses and a med-tech. The first leg went smoothly and they had their patient on board at Fairbanks by one a.m. In a matter of minutes they were on their way to McChord AFB, Washington. The five-hour flight was closer to six, after a couple of missed approaches due to fog; but the mighty Herc finally landed at TCM and taxied in amid the droves of Starlifters. Bill checked on the patient; everything looked good. So Bill decided that he and Fritz would go to ops and flight plan. "Free" and the loadmaster would stay at the aircraft while refueling was underway, and all would meet at the snack bar for breakfast.

"Think we ought to check into the Q and get some sleep before we head back?" George asked as he rubbed his tired eyes. By now, the entire crew was feeling the pains of an "up all day-fly all night" mission.

"No," Bill said slowly. He studied his watch. "We can make it back and still be within our 16-hour crew duty day. Besides, you know that the squadron is short of TDY funds," he added as an afterthought.

It was midmorning when the Hercules nosed skyward and turned in a northerly direction.

"Seattle Center, Rescue 95877 through 10,000 for flight level 290," jawed Fritz over the radio, then turned to Bill, "Sure is a nice view of the Olympics this morning."

"Yeah," replied the AC, yawning. "You've got it. Wake me up when we're a hundred out of Middleton."

Fritz didn't mind running the show. He began to daydream about the not too distant future when he'd be in the left seat. The navigator returned from a trip to the rear, "Looks like a mausoleum back there. Even the nurses are sawing logs!"

"You got it, Fritz. Wake me up when we're a hundred out . . . . "

Fritz found staying awake more difficult than he had expected. The sunlight shining through the windscreen caused his eyelids to become heavy and he found himself occasionally nodding off.

The navigator's estimates for the reporting points were accurate, as usual. The fact that they were flying primarily between navaids gave him a good excuse to depart the conscious world; the radio operator had been asleep since the wheels were tucked into the wells. That left only Lieutenant Detrich and Sergeant Freeman awake on the flight deck. They exchanged jokes about the condition of the crew and other sundry subjects.

"This sun is really putting me to sleep," remarked Fritz. "Can you cool it down a bit in here?"

"I'll see what I can do," responded Freeman, "but you know the problems we've had with the air conditioning. I've been controlling the temperature in manual and it still isn't working right. I'm surprised that the pressurization has been holding so well."

Fritz kept himself awake by

making course corrections and an occasional position report. Freeman made adjustments on the fuel panel. The engines were now feeding from the main wing tanks. Freeman knew they were in the home stretch. The navigator woke up long enough to verify their position and checked with the engineer to update his fuel log. Soon, both were snoring lightly. The sleepy copilot made the last position report before Middleton and thought about his ultimate reunion with terra firma and the direct course he would be taking back to his bed. Less than two hours to go.

Unfortunately, in Fritz's occasional moments of consciousness he did not notice the cabin altimeter which had already crept through 10,000 feet. Sergeant Freeman might have spotted the problem of the failing pressurization system also, but he was already experiencing euphoric symptoms of hypoxia.

"Rescue 95877, this is Anchorage Center. If you read this transmission, please ident. You are 30 miles off course ...."

He thought about his ultimate reunion with terra firma.

"Alpha Papa 11, you are now on an intercept heading with the HC-130. He is at your one o'clock, flight level 290, at five miles. Attempt to make visual contact."

But there was no help for the C-130. Those on the crew who were not asleep had become hypoxic. Most were already unconscious. Frantic attempts at communication on guard frequency went unheard, crackling through headsets into unhearing ears. Even the dangerously close passes of the interceptors failed to revive any of the crew. The fate of Rescue 95877 had already been ordained.

Approaching the polar icecap, the interceptor pilots watched in awe as the HC-130, its fuel exhausted, slowly dropped its left wing and began its dive toward the frozen tundra.

ABOUT THE AUTHOR

Captain Miller is a native of Washington State. A 1973 grad of the USAF Academy with a degree in Soviet Studies, he has continued his study of Russia through postgraduate work. Captain Miller has accrued about 1,000 hours of flying since finishing pilot training at Moody AFB, Georgia. He is currently assigned to the 71 ARRS, Elmendorf AFB, Alaska, as an HC-130 pilot, soon to be upgraded to aircraft commander.

A Book Review

by 1st Lt John L. Plaster
Minnesota Army National Guard
St. Paul, Minnesota

POW: A Definitive History of the American Prisoner-of-War Experience in Vietnam, 1964-1973

Here's a book with socially redeeming value for all aircrewmembers.

On 5 August 1964, Navy Lt (jg) Everett Alvarez ejected from his battle-damaged A-4 and was captured by the North Vietnamese, becoming their first American prisoner-of-war. Over the next nine years, as the number of Americans in combat increased, hundreds of other Americans joined Alvarez as POW's. Until now their story has largely gone untold.

The recent publication of John G. Hubbell's *POW: A Definitive History of the American Prisoner-of-War Experience in Vietnam, 1964-1973* finally and comprehensively tells that story—the base indignities, the solitary confinement, the starvation, the continual torture, and the brutal beatings the POW's suffered during captivity.

Denied the protection of the Geneva Convention or even inspections by the International Red Cross, the POW's were at the mercy of their Communist captors—and their captors often proved to be unmerciful. In page after page, Hubbell documents carefully executed torture, some as crude as mere beatings, others as sophisticated as dislocating shoulders with ropes, which causes excruciating pain without incriminating scars.

Many POW's broke under torture and confirmed again that, given enough pain, a human being can be coerced into admitting or fabricating nearly anything. Indicative of many prisoners' determined resistance is their lingering guilt for having "cracked" at all!

Occasional humor is provided by propaganda statements given after reaching the limits of physical resistance. SSgt Dennis Thompson, a captured Green Beret, when forced to write a propaganda statement on his compassionate treatment, wrote:

> . . . It has been brought to my attention, after my captivity, that the Vietnamese people have been revolting throughout their 4000-year history. The Vietnamese people have proven themselves to be the most revolting people I have ever met in my life. I hope that soon the Vietnamese Communists and all those who have taken care of me and my friends as prisoners will get what they deserve . . . .

The Communists accepted it. However, fraudulent statements weren't always accepted by the North Vietnamese.

Hubbell reports that seldom did interrogators demand military information. They wanted propaganda statements they could use to shape world opinion through the international press.

Hubbell does not pass lightly over those captives who willingly helped their captors, but neither does he indict them. He correctly points out—much to the surprise of many returning POW's—that the Code of Conduct doesn't carry the weight of the law; violations are not subject to prosecution.

American soldiers and airmen could learn much from this book, especially covert methods of prison communications and techniques for evading the demands of interrogators.

Based upon nearly 200 detailed interviews with former POW's, Hubbell has written a readable, well-paced history of their captivity.

POW is dedicated to the Americans who died in captivity, several of whom are mentioned in the text. The publisher, Reader's Digest Press, has announced that all proceeds from the book will go to POW's and their families.

The story of the heroic resistance of these former prisoners and their undying faith in America is a monument to patriotism and a paragon for present and future generations.

The Airlift

Legacy

C-124C Globemaster II

"Big Shakey" had a lot of other names in her 20-plus years of history. The unpressurized behemoth was a follow-on of the Globemaster I—the C-74. The '124 was built by Douglas Aircraft Company. One of the largest craft of its day, the bird was 130 feet long with a 174-foot wingspan—that's 30 feet longer than a Herk and 14 feet more wing than a '141. Pratt and Whitney supplied the power: 28-cylinder R-4360's (4, each). With the Curtiss electric constant speed prop, each could turn up 2,800 horsepower at 2,600 rpm with METO power set. Because "Ol' Shake" was unpressurized, most flights were conducted at or below 10,000 feet. Normal cruise TAS was just over 200 knots and peacetime Max ACL was 53,000 pounds. Front loading ramps and rear elevator gave it loading and unloading flexibility. With an operating weight of 110,000 pounds and a max gross of 185,000, the 124 was a versatile airlifter. And when you loaded her up with 65,587 pounds of gasoline she could stay airborne over 24 hours.

Danny

CAR and DRIVER
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TIME
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PLAYBOY
NOW, THE REAL
FLIGHT MANUAL
BASIC

D. Sees the Light

A Timid Tome gives a frank opinion of aircrew knowledge today.

by **Capt William R. Caldwell**
MAC Flying Safety
Scott AFB, Illinois

It's so dark in here, Danny thought. But it had been so long, he was becoming used to it.

"Hey, turkey! You in on this or not?"

Not knowing exactly what was going on but forced to be a part of the group, Danny was hesitant to reply.

"Well, I guess so. What's the scam this time?"

"What's with you, man? How come you think everything I do is illegal or immoral? You heard the engines start, didn't ya?"

"Well, uh, yes." He really hadn't.

"Well, then, turkey, you know what the action is. Which one of us is gonna hit the 'fresh air' scene first this time?"

The aircraft bounced through a hole on the taxiway, reminding Danny of his cramped surroundings; all of his associates seemed to violate his personal space. He'd grown to dread every flight now. With nothing to do and a weak constitution, the bouncing and weaving of flying usually left him wondering which side was up. Often he had asked himself why he hadn't grabbed one of those soft office jobs like some of his brothers had. But his fate was sealed now and would stay that way until his owner PCS'ed. Gee, he thought, why can't he open this thing and get some air in here?

Aware that his companions were still waiting for an answer, Danny muttered a reply and slid back into his proper place.

"Come on, turkey." His overbearing friend sneered at him, "Spit it out! Which one of us ya bettin' on?"

"I said it will be you again, Peter."

"So you finally got the big picture, huh, turkey? Finally seen the light."

Unfortunately Danny had seen the light . . . a long time ago. He guessed that the stuff he was made of just didn't appeal to the guys flying the line today. There had been a time, when the planes were new, that no self-respecting flight engineer would miss a chance to pull the copilot's chain. But that time had passed and the new breed seemed to have all they could handle just keeping track of what to do when a warning light came on. No one cared about the "why's" any more.

The aircraft started rolling and Danny leaned forward against the takeoff acceleration. As they cleared the ground, he knew it wouldn't be long until his prediction came true. Hoping for a breath of fresh air, he strained toward the top where a flicker of light spilled through as the airplane banked. Finding no relief, he focused his attention on the crew's conversation.

"Five hundred to level-off," the copilot called out.

"Check," the AC replied. "Tell 'em we're level; then give MacDill a call with our departure stuff."

Danny could almost hear the HF static as the copilot established contact with the airways facility. Then, just as always, the top opened.

The light flooding in was so sudden and bright that Danny didn't realize a hand was reaching in, touching his barely worn edges, but he could hear his owner, the engineer, speaking to the crew.

"Hey, pilot! This is the FE. You think our lieutenant knows anything about this machine?"

"Don't know, Sarge," came the reply. "You wanna find out?"

"Roger that, sir. Hey, co, you got any idea how many control cables this airplane's got?"

As the engineer's fingers searched his pages for proof of the right answer, Danny felt the old but familiar chills running up and down his binding. In the distance, he could hear Peter Playboy's embarrassed attempt to start a new pool.

"Hey, you jive turkeys! How long you think a Dash One can last out there?"

The Visual Approach: *Not Just for Locals*

Here's a heads-up look at what the book really says.

Editor's Note: As the emphasis on IFR-only operation increases and radar vectors to an ILS become a way of life, we tend to forget the advantages of an old-fashioned, heads-up visual approach. In fact, there may even be a tendency to regard a visual approach as being a little bit "shady," if not downright illegal. This article was written to help correct that impression. Although it might seem to address only the younger troops who've grown up with the "IFR-only" concept, there's also something in it for you IP's and FE's who take it for granted that anyone *can fly by looking out the windows.*

Here's the situation: You're inbound to High Density Muni in your many-motored aerospace heavylifter. The place is real Indian country—dozens of Cherokees, Apaches, Aztecs, and such are boring holes in the severe clear. Fortunately eagle-eyed Major MacZaminer is in the jump seat, helping you clear.

The only instrument approach to High-D is an ADF with circling minimums, and the beacon is about 15 miles away on the far side of the field. High-D Approach Control offers you

vectors for a visual approach, which sounds like a pretty good way to save time and gas and would let you keep your head out of the cockpit. But you remember that MacZaminer is watching and that MACSUP 1 to AFR 60-16 says: " . . . pilots will execute an instrument approach, when available." Whatcha gonna do now, Bunky?

"Simple," you say. "I shall execute the ADF-A, for I am a true believer in the MAC regs and would never soil my reputation by performing an icky ol' visual approach. I have sworn upon my mother's good name never to fly VFR except on locals, and besides—MacZaminer is watching."

Now that *sounds* like a pretty good answer. It's chock-full of zeal and motivation and righteousness and a dogged determination to do things by the book. Unfortunately, it's based on some incorrect assumptions—and to see why, let's look in a few books.

Ungarbling the Word

"The Air Force goal," says AFR 60-16 in large capital letters, "is maximum air operations under IFR." The MACSUP goes on to add, " . . . clearances on all fixed wing aircraft will be filed in accordance with instrument flight rules whenever flight extends outside the local area." The idea behind those requirements is simple: IFR provides maximum protection through traffic separation and radar traffic advisories, thus significantly lessening your chances of running into your fellow aeronauts. Not a bad idea at all, considering today's ever more crowded skies.

Together with the requirement to execute an instrument approach when available, all this seems to sound the death knell for visual approaches. But let's take a look in another book: FLIP General Planning, Chapter 2, (Terms, Abbreviations, and Notam Code).

> **Visual Approach** —An approach wherein an aircraft on an IFR flight plan, operating in VFR conditions *under the control of an air traffic control facility* and having an air traffic control authorization, may deviate from the prescribed instrument approach procedure and proceed to the airport of destination *in VFR conditions*. (Italics ours—Ed.)

You'll notice that the definition doesn't mention VFR *operation* — only VFR *conditions*. You're still on an an IFR flight plan under the protective wing of ATC, so that visual approach is just as legal as the ADF circling approach you thought you had to make, and probably safer. In this case, the visual approach *is* an instrument approach. Surprised?

Why Go Visual?

Now you know that MacZaminer won't bust you for accepting that visual approach, but you may still be wondering what's in it for you. Once again, AFR 60-16 has the answer. It says, "Pilots operating in visual conditions under IFR should be aware that they are in a 'see and avoid' environment." In other words, an IFR clearance is a supplement to visual clearing, not a substitute for it. So the best way to see and avoid VFR traffic is an approach with your eyes focused outside most of the time and the help of radar advisories.

Not long ago, a MAC crew had a near-midair in visual conditions with a light aircraft. However, they didn't find out about the close call until they were on the ground; both pilots had had their heads in the cockpit and never saw the other guy. The near-midair was reported by the civilian pilot. If that doesn't provide some motivation for using the Mark I ELS (Eyeball Landing System), you'd better make all your approaches in the simulator.

Want more reasons? Flying time and fuel are both expensive commodities; a visual approach with its more compact pattern can save both. Proficiency is another reason—if you don't practice visual flying you're not going to be too good at it when you have no other choice. If you don't think that day will ever come, check the words in FLIP General Planning about Stage III radar sequencing and separation service. At terminals where Stage III is in effect it's mandatory for USAF aircraft to use the service—and according to Stage III rules, you may be required to fly a visual approach.

Tips and Techniques

Let's say you've decided the visual approach is a pretty good idea, and you're planning to make one the very next time you go into High-D Muni on a VMC day. How do you go about making a visual approach? Are there

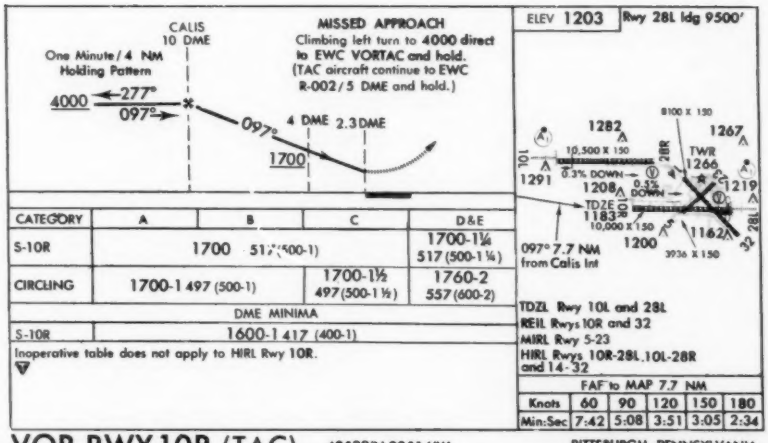
some cut-and-dried procedures, or is it every man for himself? And what do the people in rapcon and the tower expect?

Well — it depends. Local restrictions, weather, wind, and the traffic situation are some of the variables that determine what your visual approach will be like. At one end of the spectrum is the "if - you - see - the - field - you're - cleared - for - approach - contact - tower" routine; at the other end are radar vectors for a straight-in final with tacan, ILS, and VASI to back you up.

Let's take a look at the "go-do-your-thing" approach first. Rapcon may or may not provide vectors for pattern entry; if not, just enter on a 45 to downwind as you would in a VFR rectangular pattern. (Remember, you're still on an IFR clearance unless you say the magic words "cancel IFR.") Pattern altitude is frequently published in the enroute supplement, along with instructions about traffic direction, noise abatement, local hazards, and so on. A published pattern altitude will provide at least 300 feet clearance above the highest obstruction within two miles of the runway on the maneuvering side—so keep your pattern within two miles.

A rule to remember: If you're not sure, ask. If the tower controller wants you to modify your pattern, he'll probably tell you so, but don't assume anything.

Other possible visual approaches are modified versions of the VFR pattern — vectors to base or to final. But



VOR RWY 10R (TAC) 40°29'N-80°14'W 118

PITTSBURGH, PENNSYLVANIA
GREATER PITTSBURGH INTL

however you get to final approach, you'll still be faced with the same problem you meet on every landing: vertical flight path guidance.

Finding the Angle

Probably the best aid for visual approach path guidance is VASI, which allows you to spend the maximum time with your eyes outside. If there's no VASI, ILS is nearly as good; you can check your glide slope deviation in little more time than it takes to glance at your airspeed. But what about a field where neither VASI nor ILS is waiting to help you out? An approach plate plus a little math can be a big help here.

Let's say you're cleared for a visual approach to runway 10R at Greater Pittsburgh International. There's plenty of runway, but no VASI or ILS. You want to position your aircraft for a three-degree glide path to touchdown, so you get out the approach plate for the VOR RWY 10R approach.

The vertical section of the plate shows that the end of the runway is located at 2.3 DME from the tacan. You want to touch down about 2,000 feet past the threshold—roughly another .3 DME closer to the navaid. Your aimpoint thus becomes 2 DME.

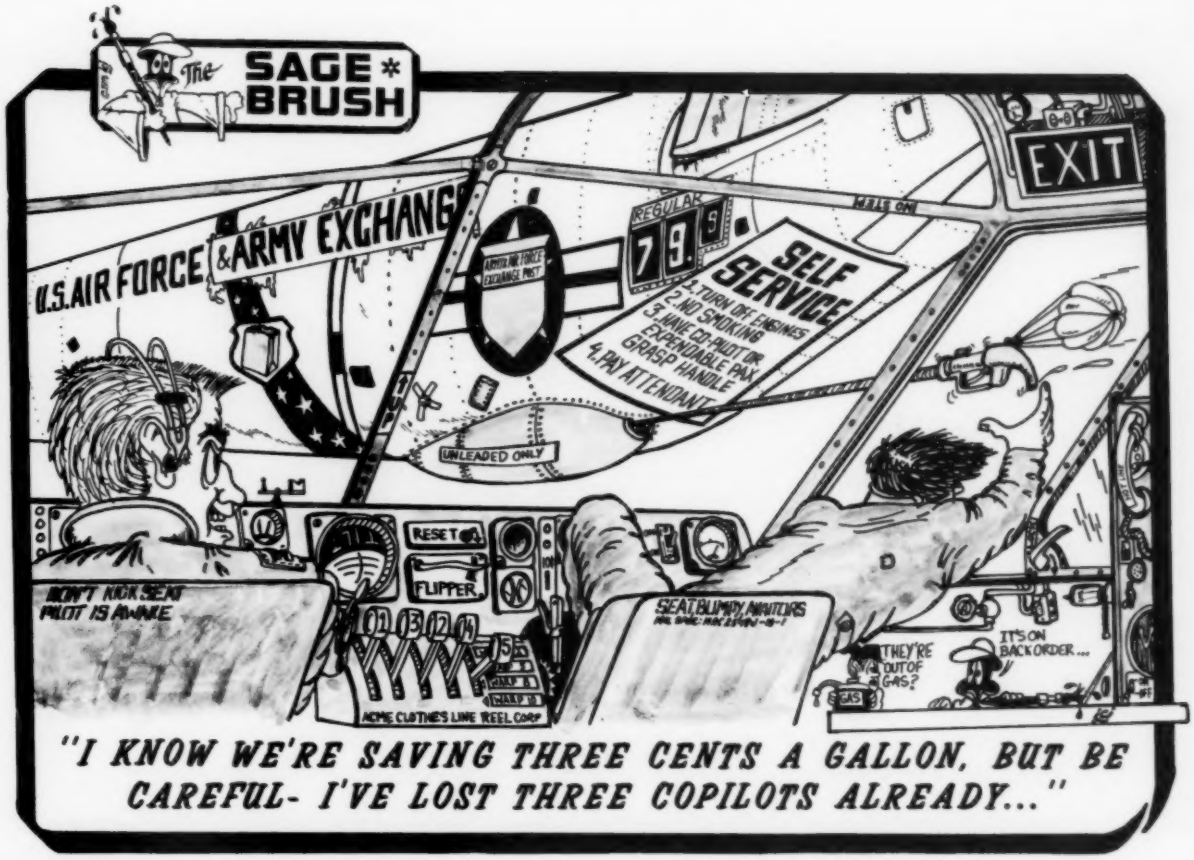
You remember from the days when you aced trigonometry (or from what that old head flight examiner told you) that a three-degree glide path equates to about 300 feet of altitude per nautical mile of horizontal distance. At three miles from touchdown you should be at 900 feet AGL; at two miles, 600 feet; and so on. Using the field elevation for Greater Pittsburgh and the 2 DME we figured for the touchdown point, this translates to 2,100 MSL at 5 DME, 1,800 at 4 DME, and 1,500 at 3 DME—which puts you at 300

feet AGL at one mile from touchdown.

That all sounds pretty simple, but if you haven't got DME to help you, it gets tougher. An ADF or VOR on the final approach path can give you some help, if you can figure the distance to touchdown from the approach plate. But sometimes you may be left with nothing but eyeballs, which is why practicing visual approaches will really pay off.

Next time you're coming down final with the aid of VASI, spend some time watching the runway picture. The aim point on the runway will stay in the same relative position in your windscreen if you're staying on glide path. The apparent length and width of the runway should give you an idea of what your horizontal and vertical approach angles look like. In any case, the secret to a good visual approach is the same as for any other approach: practice.

So there it is, folks—visual approaches are not only legal, they're good for you. Sure, it's best to stick with a nice, comforting PAR or ILS when you're boring through darkness, haze or murk. But to paraphrase the words of the song: "On a clear day, you can see forever"—as long as you're not glued to the gauges.



"I KNOW WE'RE SAVING THREE CENTS A GALLON, BUT BE CAREFUL- I'VE LOST THREE COPILOTS ALREADY..."

Déjà Vu*

*(da-zha-vu), (Fr., lit., already seen), the illusion that one has previously had a given experience.

Andersen AFB

Guam

Andersen is located in the mid-Pacific on the northeastern shoreline of Guam. It is built on uneven terrain with sloping runways and taxiways which contribute to visual illusions. The runways, 06/24 left and right, are about 11,000 feet long and 200 feet wide; the lowest point is about 3,000 feet past the 06 threshold. On a visual final for either runway 06, the pilot may believe he is below glide path due to the downward slope from the threshold combined with the runway length and width relationship. This may lead to a steep final approach.

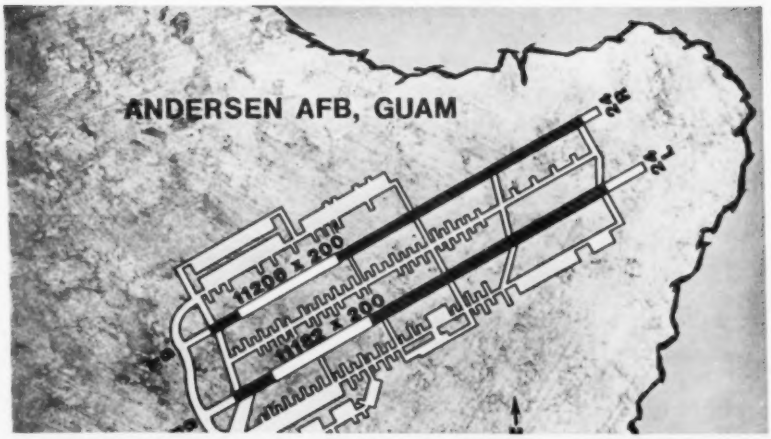
When landing to the southwest, the 600-foot cliff near the approach end and a long overwater approach may result in a dragged-in final. Onshore winds frequently cause turbulence near the cliff.

During takeoff from 06 on an overcast night, a crew will find few visual cues available past the end of the runway; strict attention to the flight instruments is the secret.

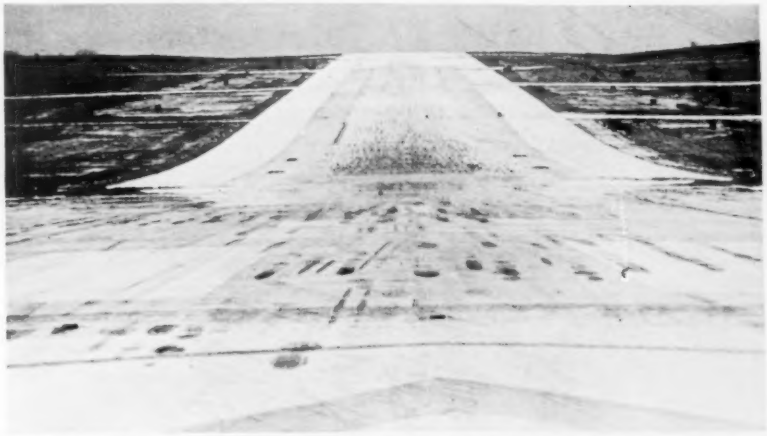
Agana NAS is located approximately 10 miles southeast of Andersen. It has parallel runways of the same headings as Andersen's. You'll overfly it on final to 06 L/R. Watch for traffic.

Andersen's taxiways and parking ramps have noticeable grades so take care not to overheat brakes while taxiing.

—Adapted from ISD-Q6-473



The runways are built on uneven terrain. The lowest points are marked in white.



This ground level shot gives you an idea of the slope of runway 06R.

Three and one-half miles on final for runway 24R. Note the 600-foot cliff. Strong winds can cause turbulence on short final.

C.R. knocks himself out in battle with the common cold.

C.R. TERROR

"My gawd, my head hurts," mumbled the Hungover Herky Hauler to no one in particular. As C.R. struggled to a sitting position on the edge of his bed, his field-grade fingers fumbled about on the nearby table for a gold-ring Egyptian Oval and his ebony cigarette holder. He lit up and inhaled deeply. As the effects of the nicotine worked on the Great One's body, he realized this was worse than his usual "morning after." With the bright, morning Florida sun flooding his Q-room, a drowsy C.R. tried to recall the previous night's activities.

"It can't be!" sniffled C.R. "The World's Greatest Pilot will not be stricken with the common cold!" He waddled his generous physique to the closet, found his deluxe wallaby-hide shaving kit, and searched for pharmaceutical relief for his symptoms. His pudgy fingers sorted through the paraphernalia until he found an amber, safety-capped apothecary bottle. Reading the label he

realized that he had found the desired drug and let out a passionate, "Eureka!"

"You okay, boss?" asked Blinky from the door of the kitchen adjoining their rooms. "I thought I heard a scream."

"Yes, yes, your commander is fine, m'boy, have no fear," coughed the Pudgy Pilot. "There is no doubt that I'll be able to lead the world's finest flyers back to their home aerodrome in time for a joyous holiday on the morrow. Not to mention my own Terrorific Thanksgiving with Tassels."

"You sound a bit strange, Major; you sure you aren't coming down with something?" quipped the perpetually healthy navigator.

"Harrumph, just get your charts, colored pencils, and funny wings together for our afternoon departure, Junior Magellan—and tell Sammy to get the flight plan ready. I'll meet you at base ops." C.R. pointed a stern finger at his navigator, "And you advise my second-in-command that he is not to allow those ground-bound hounds at command post to divert us anywhere!"

An hour and a half later the Rotund One appeared in the flight planning room feeling less than fantastic; the antihistamine had helped the sniffles, but not the hangover.

"Well, Sammy, I assume we're filed and ready to go. Let's take our Brown-and-Green Flying Machine back to Abilene," warbled the Rotund One, leaning heavily on the flight planning table.

"Uh, right, sir," replied Sammy hesitantly, "but we aren't, uh, going directly to Dyess."

"They didn't! They wouldn't! They can't! I told you not to let them do this!" C.R. tiraded as he rushed out the door toward the command post.

Shortly, a quieter but still pompous C.R. returned to the flight planning room and announced that they had been "specially selected" to carry sensitive cargo to Kelly and that the cargo was, in fact, class B explosives.

"What's that bundle of yellow paper under your arm, Sammy?" asked the Errant Aeronaut.

"Nothing special, just our notams for the trip. I really haven't had time to look at all of them, and the report for Kelly is noted as 'not available,' " replied Sammy. "Since they started the notam ARQ test the computer prints out an encyclopedia every trip—but at least the SOF can verify that we did get the notams."

The Terrorific Triad boarded the crew bus and rode to the awaiting Herk. It stood dully in the bright Florida sun, its ramp and door open wide, exposing a seemingly empty cargo compartment. Sergeant Ty Downs sat comfortably on the edge of the ramp awaiting their arrival.

"Where's the load, Load?" asked C.R. "Haven't the cargo-crushers delivered it yet?"

"Yes, sir, the load is tied down right here," replied the loadmaster, patting a small box secured with a single 5,000-pound tiedown strap. The label on the box read, "Ejector, Canopy, One Each."

"The aerial port guy said something about the ALC at Kelly needing this thing right away for some kind of exhibit," explained Sergeant Downs.

The Rotund One muttered something about being "specially selected" and proceeded to the sweltering cockpit. Sergeant Torque and his student flight engineer, Sergeant Stanley, were looking at the aircraft forms when he arrived. "Say, Major, Sir, how high are we going today?" inquired the student flight engineer. "The plane has an air conditioner writeup that's still open."

C.R. peered at the 781 for a moment. "Never mind such trivia, my novice NCO," said the Great One. "You super systems operators can run it in manual."

"Yes, sir," replied the young engineer, surprised at C.R.'s display of system knowledge.

The Able Aeronaut and crew proceeded smoothly through the aircraft checks, takeoff, and climb to FL 260. As the Brown and Green droned over the blue Gulf waters toward the Texas coast, the afternoon sun shown warmly on the Aviator with Avoirdupois. Combined with the effects of the antihistamine and the previous night's festivity, the warmth lulled the Drowsy Driver into a state of complacent relaxation.

"YougotitSammywakemebeforelanding," the sleepy Slipper of

Surly Bonds slurred.

Sammy reached over and pushed off his boss's hot mike so the crew wouldn't be irritated by his snoring.

About a hundred miles out of San Antonio, Sammy started his predescent activities — appropriate calls to command post and metro and one requesting an en route descent. He began the before-landing-pattern checklist, gave the crew briefing, and called for the pressurization system to be set.

Sergeant Torque was scanning left for traffic called out by Center, assisting Sammy in overcoming the absence of C.R.'s astute clearing. He turned to his right just in time to see Sergeant Stanley's hand make a counterclockwise motion at the pressurization panel. The neophyte engineer had turned the pressurization switch to "aux vent" before Sergeant Torque could catch him. The Herk gave a great gasp as it released its pressurization and the cabin altimeter rapidly climbed to meet the barometric one. In the left seat, the Rotund One choked and struggled from his slumber as his sinus cavities attempted to

reduce their own pressure. The Adiabatic Aeronaut immediately seized the gravity of the situation and commanded, "Get on oxygen, put out the gear and flaps, emergency descent, call Center!"

Sammy switched off the autopilot, retarded the throttles, and poked the Herk's nose earthward. He got off a call to Center as they left their assigned altitude.

"I've got the machine, m'boyeeeow!!" the Rotund One cried as he was hit with the exquisitely excruciating pain of a right maxillary sinus block. Long Suffering Sam resumed control of the tactical titan, but was momentarily shocked to see the World's Greatest Aviator slump, unconscious, into the seat. Sam eased back on the yoke recovering from the unusual attitude. Sergeant Torque and Blinky examined C.R. and pronounced him alive.

The smell of medicinal alcohol, the scratch of stiff linen and the sound of muted voices touched the Rotund One's senses. He opened his eyes slowly, fearing the worst, but before him stood a buxom, brown-haired, bespectacled lieutenant nurse.

"It's nice to see you awake, Major," she said cheerily. "Your reaction to the acute pain of a ruptured sinus really startled your crew. The flight surgeon wants to talk to you about the results of your blood test, and your ops officer and squadron commander both called."

"Wh-what day is it?" asked the Portly Patient.

"It's Thursday, the 24th, Thanksgiving," replied the jovial nurse. "Oh, and you had one other call—from a Miss Taylor. She said something about cooking your goose instead of a turkey."

"Ohh," moaned C.R. dejectedly.

"Don't worry, Major. Even on your liquid diet you can have turkey for dinner—turkey soup, that is."

Quick Stoppers

Starlifter Sidewinder

"Slipping," or uncoordinated flight, is a common technique used in lightplane flying to lose unwanted altitude, but for a C-141 at cruise it's not so desirable.

The crew had gotten their Starlifter airborne from an en route station; when everything settled down, they noticed that the bird required three degrees of left bank to maintain a given heading. By cross-trimming the aircraft with three degrees of aileron and two degrees of rudder trim, level flight could be maintained—but the aircraft heading drifted about ten degrees per minute. Using the autopilot made no difference.

The engineer noticed that the cruise EPR setting needed to maintain the planned .74 Mach was .03 higher than charted. The crew elected to return to departure station and have it checked out.

Back on the ground, they gave the aircraft to maintenance. Initial troubleshooting by the wrench benders yielded those familiar words, "Could not duplicate . . . " But after a thorough system evaluation, the troops found that the aileron rigging was out of limits—and it probably had deterioriated to that unacceptable condition over a period of time.

The swept-wing was rerigged to T.O. standards and a functional checkflight proved uneventful. Maintenance released the craft and the crew departed without incident.

A Lesson in Terrainee Avoidance

Here's another case where a MAC crew kept their heads up and possibly avoided *scrapious gluteus maximus*.

The C-141 had been cleared to descend to 2,500 feet by approach control. After passing the approach end of destination runway, the Starlifter crew received clearance from approach control to descend to 1,500 feet and were given a westerly vector.

The crew droned along several minutes on the 270 heading until, 13 DME from the field, the troops figured they'd better get some altitude unless they wanted to terminate the flight at other than the planned landing site; they climbed and turned south.

Once the crew was safely on the ground, they learned the approach controller was a *trainee* even though the field was IMC. Copy?

A Pair of High Rollers

A keen-eyed bystander noticed something unusual about the Galaxy shooting touch and go's—the nose gear had only two wheels. On the next approach, he checked again and, yes, by golly, it was a 26-wheeler—he called the tower. The flyby that followed proved that this was no prank telephone call. Both left nose gear wheels were missing. The C-5 landed without trouble and stopped on the runway where maintenance types installed two spare wheels on the undamaged axle; Albert was towed to the ramp.

The missing tires and wheels haven't been found. Midnight Aircraft Supply?

I've Got a Secret

Fly your multi-engine jet with damage to the fan section of an engine? "No way!" you say. But what if you didn't know about it—and someone else on the crew did? Here's one where a crewmember may have put too much stock in the old saying, "Silence is golden."

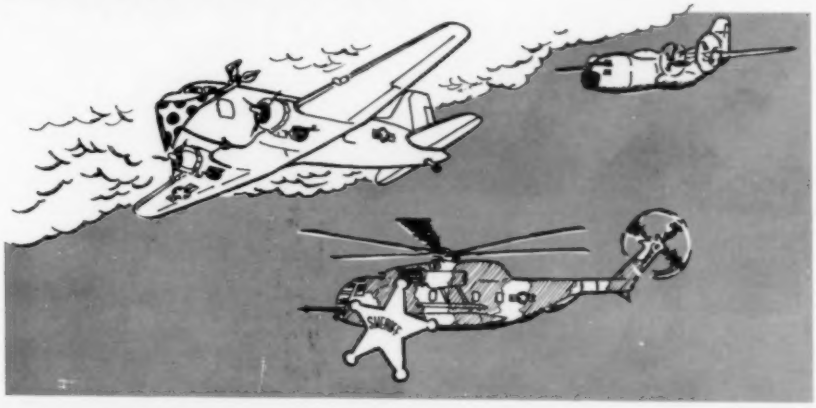
The crew flew a routine transcontinental flight to an eastern destination. Somewhere between takeoff and landing one of the fans swallowed a medium-sized bird. At the first stop, maintenance folks spotted the engine damage and informed the flight engineer; the AC was away from the aircraft performing other duties. After a few hours the flight launched to another east coast station where it was to RON. The maintainers at the RON stop rediscovered the damage and started to change the engine.

The AC found out about the damage when he heard an engine change was being done on his aircraft. The flight engineer had never reported the damage to the AC and hadn't written it up in the aircraft forms at the first stop.

The flight deck is no place for secrets.

Gooney Rustlers

"Intercept stolen C-117 cargo transport and bring him back" was the message to the Rescue Control Center. The RCC responded to this unusual request by launching an alert HC-130 Kingbird and an HH-53C Super Jolly Green Giant. The Gooney Bird had been kidnapped by two Marine enlisted types for an unauthorized flight. The Kingbird spotted the wayward Gooney just before it entered a bank of thick clouds; the Super Jolly caught him coming out the other side and the rescue aircraft effected a successful intercept. A Marine pilot aboard the HC-130 helped talk the plane-nappers safely to earth where the young, wingless aviators were met by a small committee of security police from a nearby Air Force Base. ARRS was credited with the saving of an aircraft and two lives.



Qs

Broken Links

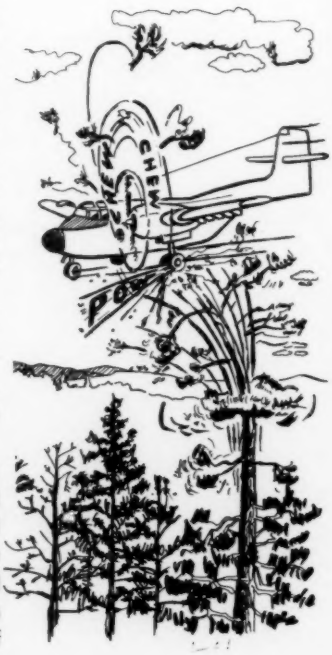
The Huey was on a local training flight and the sortie was progressing normally—up until the third practice autorotation. The pilot had just executed a 180-degree autorotation to the left with no problems through the flare but as the collective was increased for the power recovery, the left anti-torque pedal stuck momentarily, then released, causing the UH-1 to yaw abruptly to the right 20 to 30 degrees. The pilot immediately parked the airplane.

Maintenance types found two broken outside links on the silent chain. These had caused the restricted movement of the tail rotor controls.

Antlers in the Treetop

This Caribou's arboreal encounter occurred en route to a landing zone after the crew had completed an airdrop of five paratroopers. The pilot made a wide pattern to base and a long final approach to the LZ. Nearly 1,500 feet from touchdown, the C-7 struck a 45-foot tree. The outboard main tire was punctured by a tree limb which broke off inside the tire and the prop nibbled on some of the smaller branches in the treetop. The crew brought the craft in, landed, and checked for damage. The prop showed no damage; besides the punctured tire, a bracket on the gear strut was bent.

It looks like the trouble began when the pilot let the airspeed dissipate to the approach speed for 30 degrees of flaps when the "Bou" was actually configured at 15 degrees of flaps. Although the bird did not stall, the rate of descent so configured was much greater than normal and neither pilot recognized it until just prior to impact.



Notable Quote

"Airmen have always considered an accident or an incident as an opportunity to learn. Some call this tombstone safety. The antithesis of tombstone safety is *system safety,* which may be defined loosely as putting your hindsight where your foresight should be."

(Italics are ours-Ed.)

Jerome Lederer,
President Emeritus
Flight Safety Foundation, Inc.

after deadline . . .

THE AIRLIFT LEGACY, page 16, is the first of several features leading up to MAC's 30th anniversary issue of *TMF*. We need memorabilia of Air Transport Command, Naval Air Transport Service, Military Air Transport Service, tactical airlift, and Military Airlift Command. We can use old pictures, patches, stories, reports, flight plans, fleece-lined jackets, etc. Items of value will be returned.

ATTENTION, NAVIGATORS! The professional journal of military navigation, *The Navigator*, needs your help. The staff needs ideas and articles about technical and professional topics from the folks out there doing the navigating. Send your articles to *The Navigator*, 323 FTW/DOTN, Bldg 3860, Mather AFB, CA 95655. And don't forget *TMF's* writing contest (see page 3).

LOW EXPERIENCE AND LACK OF SUPERVISION contributed to five loading incidents in one day during a recent exercise. Three of these incidents involved loads shifting during takeoff. Low-experience loading crews are typical of these types of exercises; if you get involved, get involved.

FAA AIR TRAFFIC CONTROLLERS DO NOT CONSIDER WEATHER AVOIDANCE their responsibility, just traffic flow. This was brought out in recent NTSB hearings. Also, ARTC controllers don't routinely receive weather information, weather warnings, weather station sequence reports, forecasts, or pireps from outside their sector. ATC radar has poor weather depiction capability and controllers won't issue radar vectors around weather unless requested or until it hinders smooth traffic flow. That leaves the aircrew with responsibility in the weather avoidance department.

Answers to Cold Weather Quiz, page 8:

1. d	8. c	15. b	22. a
2. b	9. a	16. c	23. a and d
3. c	10. b	17. c	24. c
4. a	11. b	18. c	25. b
5. a	12. b	19. c	26. d
6. d	13. b	20. d	27. c
7. d	14. d	21. b	

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Touch 'n Go

You see, Abby, I sent him this picture of my family -- but my problem is, should I tell him about my brother who's a fighter pilot?